

INFORMATION REPORT INFORMATION REPORT

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13 SEP

C-O-N-F-I-D-E-N-T-I-A-L

COUNTRY	Nigeria	REPORT NO.	
SUBJECT	Niger River Dam and Hydroelectric Project	DATE DISTR.	15 September 1967 25X1
		NO. PAGES	3 25X1
		REFERENCES	

DATE OF INFO. 11 August 1967

PLACE & DATE ACQ.

AREA INDEXED

THIS IS UNEVALUATED INFORMATION

SOURCE

The Document and Pictorial Services Division, Central Reference Service, has recently accessioned 22 ground and aerial photographs and two personality photographs showing construction progress on the Niger River Dam and Hydroelectric Plant. Copies of the photographs described below may be obtained by citing the CIA numbers listed.

- 1204616 Aerial view of New Bussa with the Niger River in the background. New Bussa is an extensive housing project being built to house the population of the old town of Bussa which will be flooded out by the new lake when the Niger Dam is completed.
- 1204617 Aerial view of New Bussa showing close-up of new mosque.
- 1204618 Aerial view of Niger Dam at Kainji from upstream (lake) side. Former Kainji Island is in the center with right channel of the Niger dammed off in right foreground and all the Niger River flowing down left channel and through spillway in dam.
- 1204619 Aerial view of Niger Dam looking downstream (Southeast). Trees on the former Kainji Island in foreground have not yet been cut, but the whole area will eventually be cleared to form the bottom of the new Kainji Lake.
- 1204620 Aerial view of Niger Dam looking downstream. On the left bank the left rock-fill wing wall of the dam has been built up to connect with cement center section; on the right bank the right rock-fill wing wall shows on the right of the photograph but has not yet been connected to the cement center section.
- 1204621 Aerial view of Niger Dam looking downstream, showing partially completed left rock-fill wing wall extending between completed cement center section and upper navigation lock which is being built in the middle distance just left of center. Beyond the locks on the downstream side, a passing basin for barge traffic has been partially excavated.

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GROUP 1
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declassification

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25X1

- 1204622 - Niger Dam looking downstream. Cement center section completed except for installation of spillway gates and intake gate for penstocks. Openings for penstocks leading to turbines clearly visible at bottom of cement center portion; two penstocks serve each turbine and generator. Eventual installation will be twelve turbine-generator sets: eight discharging into left channel and four into right channel. Right end of cement section is not yet connected to right rock-fill wing wall, since work is still in progress in dammed-off right channel of Niger River. Breakwater in the river below the dam is almost completed to provide protected entrance to lower navigation lock.
- 1204623 - Aerial view of upper locks looking upstream (Northwest). The left rock-fill wing wall shows at the left of the photograph. The excavation in the foreground is passing basin for barges and other river vessels.
- 1204624 - Aerial view of the Niger Dam looking upstream (Northwest). The entire current of the Niger River is passing through the spillway at the right front of the photograph. At right of the photograph, is the left rock-fill wing wall connected to cement center portion but not yet built up to full height. New permanent bridge over the Niger shows in the left foreground. Right rock-fill wing wall mostly completed beyond bridge, but not yet connected to cement center portion.
- 1204625 - Close-up aerial view of the Niger Dam looking upstream. Outline of former Kainji Island is clearly visible with entire Niger flowing through left channel and spillway which is at the right of the photograph. Dammed off right channel of the Niger shows at the left with upstream cofferdam in the upper left of the photograph. Cement center section of the dam completed, with power house for four initial generators almost completed half-way across the dam face. This part of the power house will contain two turbine-generators discharging into the left channel, two more discharging into the right channel and two sets of penstocks whose turbine will also discharge into the right channel of the Niger when installed later. The rest of the power house across the remaining portion of the dam face is not under construction at this time. It will cover the final six turbine-generators for which penstocks are already built into the dam.
- 1204626 - Oblique aerial view of the concrete center section of the Niger Dam looking upstream showing the almost completed portion of the power house, administration building in front of it and work in progress preparing the tailrace for the four turbine-generator sets which will eventually discharge into the right channel of the Niger (center foreground).
- 1204627 - Enfilade view of Niger Dam showing successively from foreground: work in progress in bed of dammed-off right channel of the Niger River; tailrace being prepared to discharge into right channel; concrete center section with power house and administrative building; left channel flowing through spillway with new permanent bridge spanning it at right of photograph; left rock-fill wing wall almost completed back to upper lock in midground.

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- 1204628 - Aerial view looking upstream (Northwest) showing Awuru Rapids in Niger River eleven miles below Niger Dam at Kainji. These rapids will be by-passed by a short navigation canal across the neck of the sharp fishhook bend on the far right bank. Weir to divert water into upstream entrance of the canal shows across the river at the top of the photograph.
- 1204629 - Aerial view of the fishhook bend in the Niger River at Awuru looking upstream. The navigation canal being constructed across the neck of the bend on the right bank does not show, but its downstream entrance is just outside the left edge of the photograph and the canal will run roughly parallel to the small high-water season channel shown in the photo cutting across the neck.
- 1204630 - Aerial view of the navigation canal by-passing Awuru Rapids. Downstream entrance to the canal is in the foreground, lock is in the center and the upstream entrance is in the far background.
- 1204631 - Aerial view of the lock being built in Awuru Rapids by-pass canal. The Niger River is shown in the background flowing down to the fishhook bend just outside the upper right corner of the photograph. The ends of the lock have been finished and gates installed but the sides not yet begun.
- 1204632 - Aerial view of the lock in Awuru Rapids by-pass canal showing the Niger River below the fishhook bend flowing towards the lower end of the canal just outside the lower right corner of the photograph.
- 1204633 - The upper entrance to the Awuru Rapids by-pass canal showing the weir across the river partially over-topped by the Niger River at flood season.
- 1204634 - The excavated pit in which the lower navigation lock is being constructed, looking upstream.
- 1204635 - Juncture of the future tailrace and dammed-off right channel of the Niger River showing the cement center section of the dam and the partially completed power house and the administration building. The large square gantry crane on top of the dam will travel back and forth and be used to open and close intake gates for penstocks. The drag lines on top of the dam at both ends are being used for construction purposes and will be removed upon completion of the dam.
- 1204636 - Close-up of the power house entrance and the partially completed administration building with central concrete section of the Niger Dam looming over the top of the power house. Actual size of the dam can be judged by the people standing on the top.
- 1204637 - Close-up of the downstream face of the Niger Dam showing from right to left: the left rock-fill wing wall of the dam being built on to the cement center portion; the framework of the spillway, gates to which are not yet installed; the discharge openings for the turbine-generator sets showing at the bottom of the foundations for future part of the power house to be built at a later date. The large square gantry crane for raising and lowering intake gates has been installed on the top of the dam (center).

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NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c. Power house & admin. bldg. 11 August 1967.

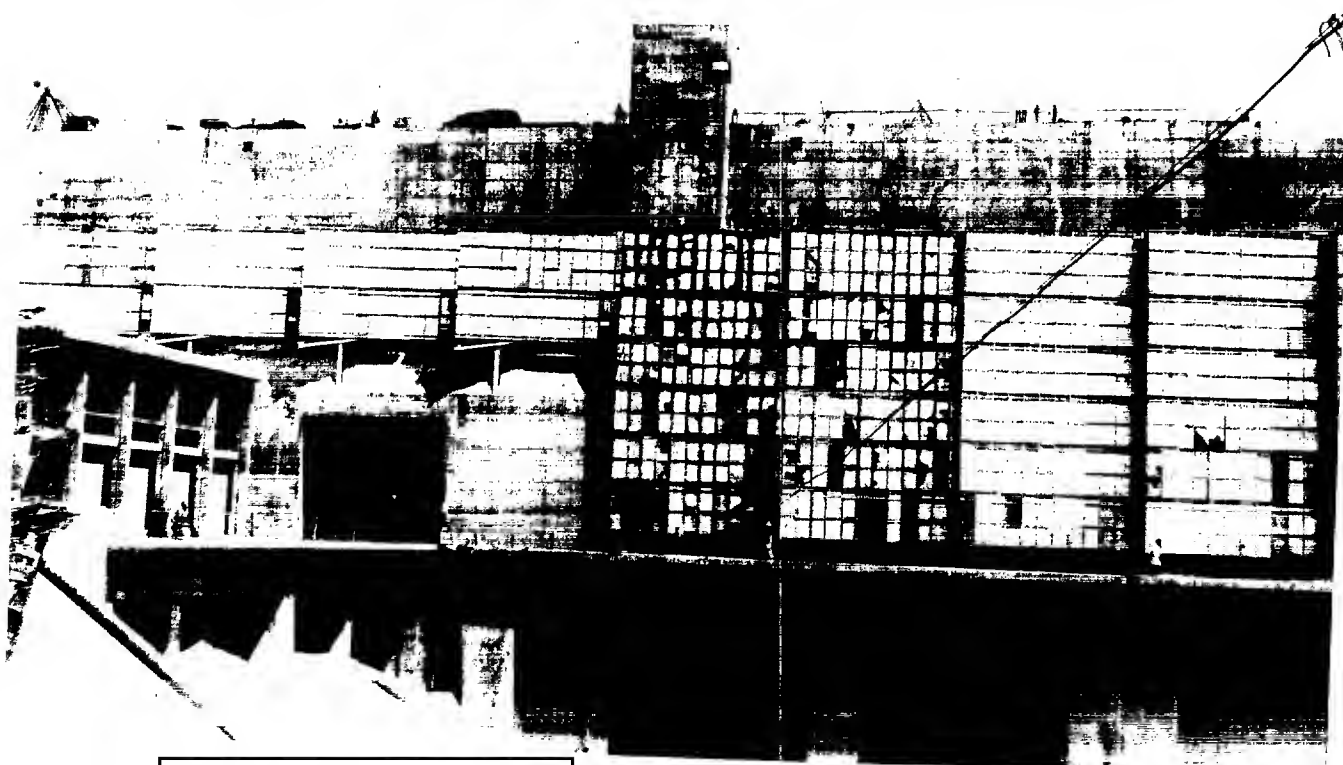
Confidential

(17,29)

CIA 1204636

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23. [REDACTED] NIGER DAM, NIGERIA, AUGUST 11, 1967. Close up of power house entrance and partially completed administration building with CAIRDP 78-04546A003300010007-0 of Niger Dam looming over top of power house. Actual size of dam can be judged by people standing on top.

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NIGERIA WAC 783C KAINJI (NR) 09 50N 04 37E
New town of New Bussa u/c to house population of old Bussa which will be
flooded by Niger Dam lake. 11 August 1967.
Confidential (6,7,10) CIA 1204616

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1. NIGER DAM, NIGERIA, AUGUST 11, 1967.
View of New Bussa from the air with Niger River in back-
ground. New Bussa is a large housing project being built
to house population of Bussa, ancient town which will be
flooded out by new lake when Niger Dam is finished.

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NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c 1kg from upstream (lake) side. 11 August 1967.

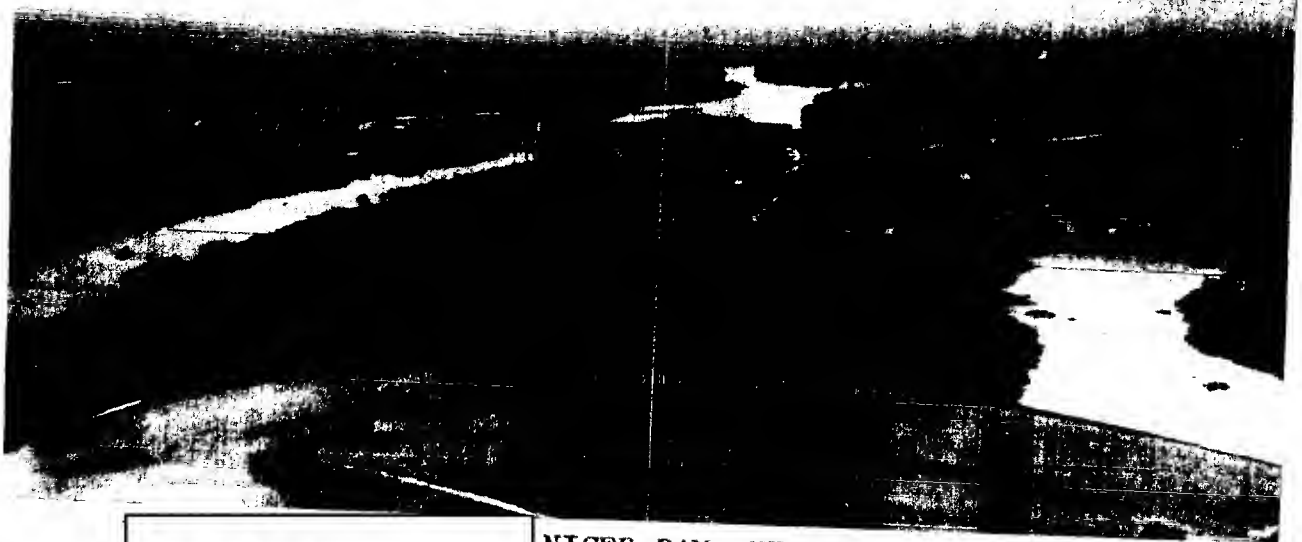
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3. [REDACTED] NIGER DAM, NIGERIA, AUGUST 11, 1967.
Aerial view of Niger Dam at Kainji from upstream (lake) side.
Former Kainji Island in center with right channel of Niger
dammed off in 1964/03/26. CIA-RDP78-04546A003300010007-0
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down left channel and through spillway in dam.

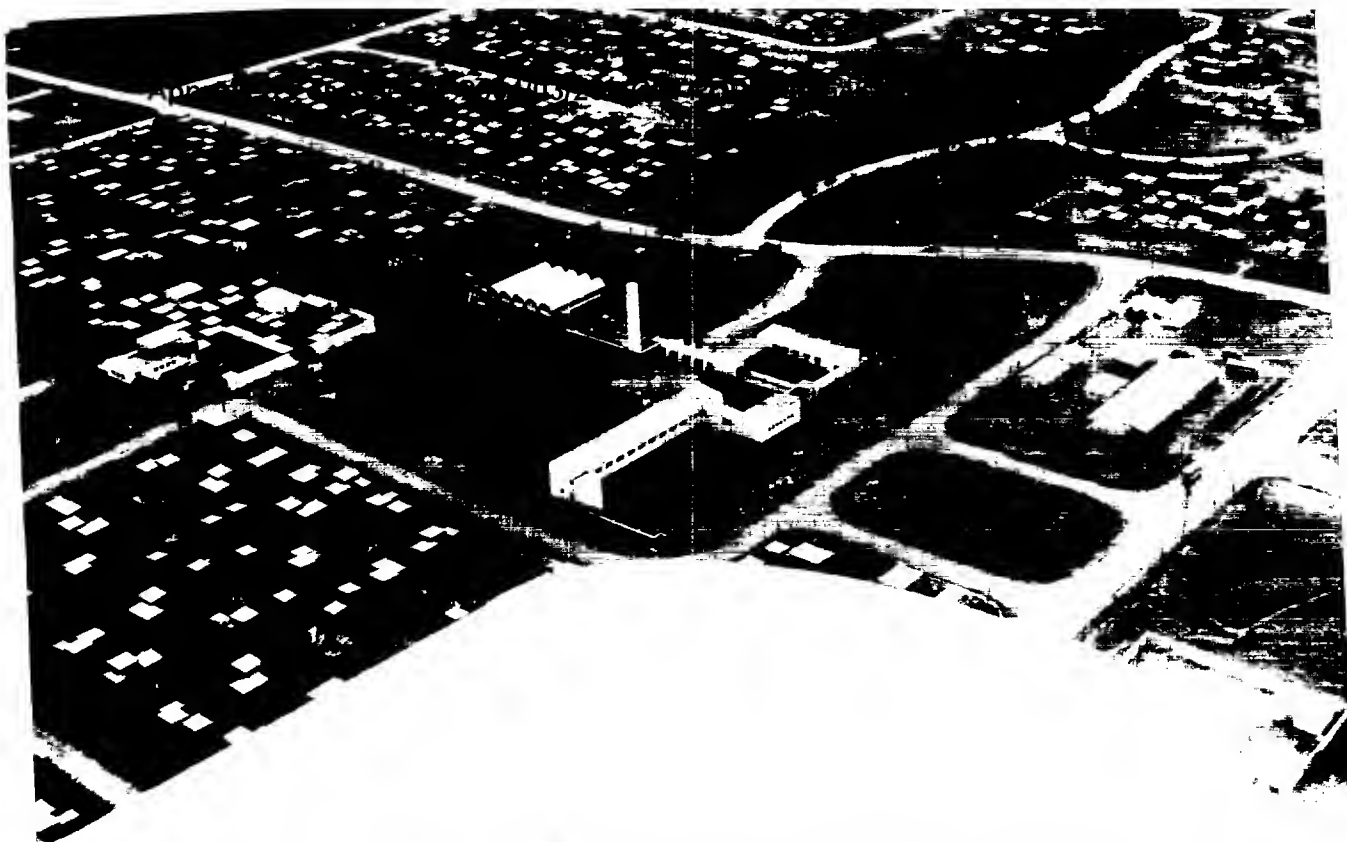
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NIGERIA WAC 783C KAINJI (NR) 09 50N 04 37E
New Bussa. Mosque center. 11 August 1967.
Confidential (6,7,10) CIA 1204617

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NIGER DAM, NIGERIA, AUGUST 11, 1967.

view of New Bussa showing close-up of New Mosque.

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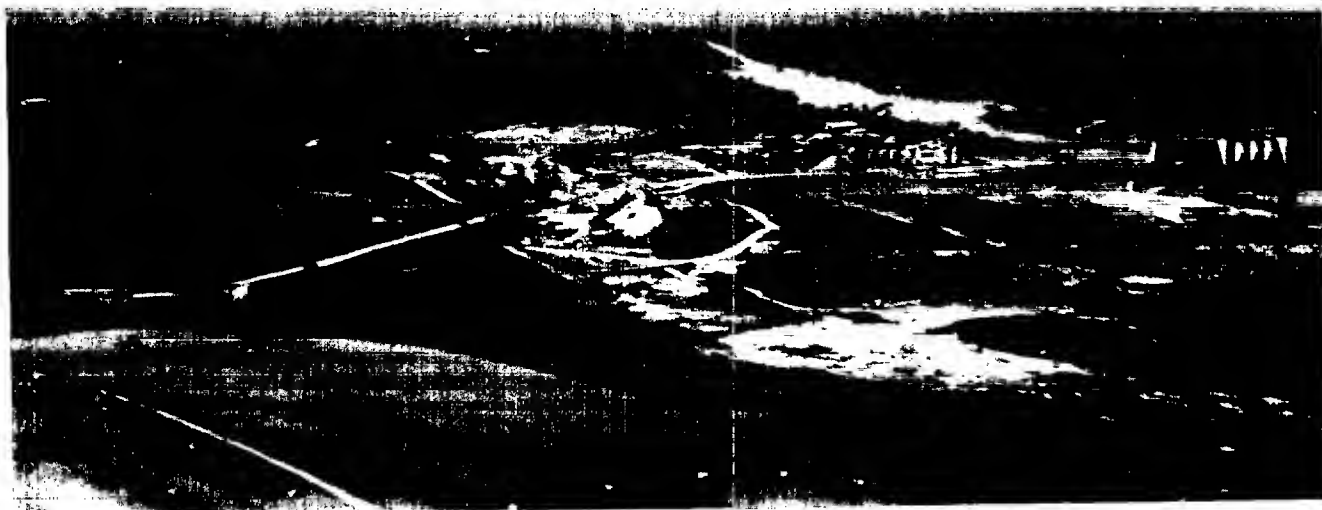
NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c 1kg downstream. 11 August 1967.
Confidential (17,29)

CIA 1204621

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6. NIGER DAM, NIGERIA, AUGUST 11, 1967. Aerial view of Niger Dam looking downstream, showing partially completed left rock-fill wing wall extending between completed cement center section and upper navigation locks. Beyond locks on downstream side passing basin for barge traffic has been partially excavated.

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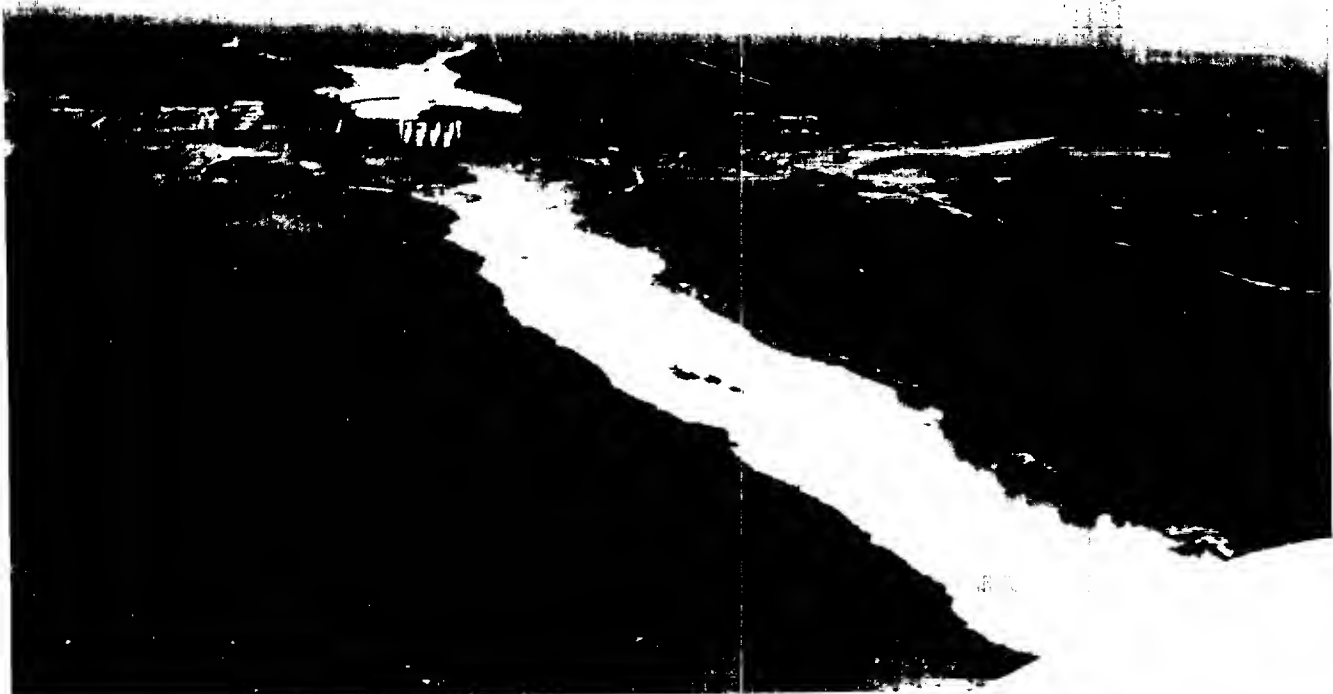
NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c 1kg downstream. 11 August 1967.
Confidential (17,29)

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STAT [REDACTED] NIGER DAM, NIGERIA, AUGUST 11, 1967.

5. Aerial view of Niger Dam looking downstream. On left bank left rock-fill wing wall of dam has been built up to connect with cement center section, on right bank right rock-fill wing wall shows on right of picture but has not yet been connected to cement center section

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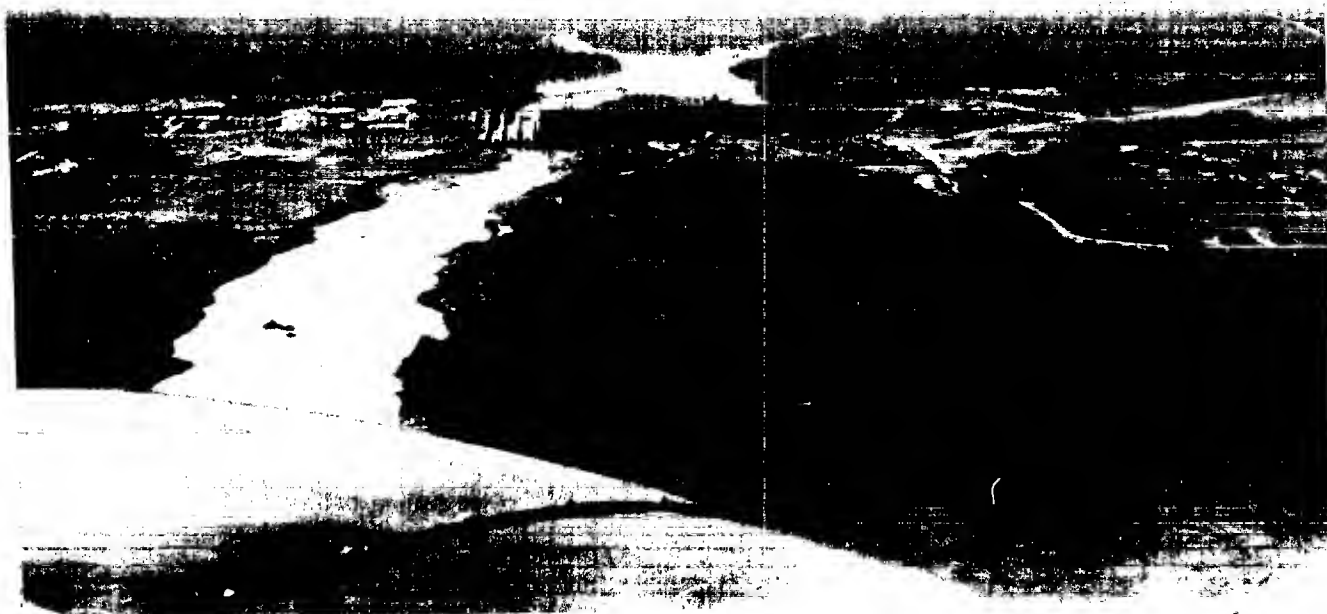
NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c 1kg SE downstream. 11 August 1967.
67. Confidential (17,29)

CIA 1204619

25X1

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4. NIGER DAM, NIGERIA, AUGUST 11, 1967.
Aerial view of Niger Dam looking downstream (Southeast).
Trees on former Kainji Island and RDP78-04546A003300010007-0 yet been
cut but whole area will eventually be cleared to form
bottom of new Kainji Lake.

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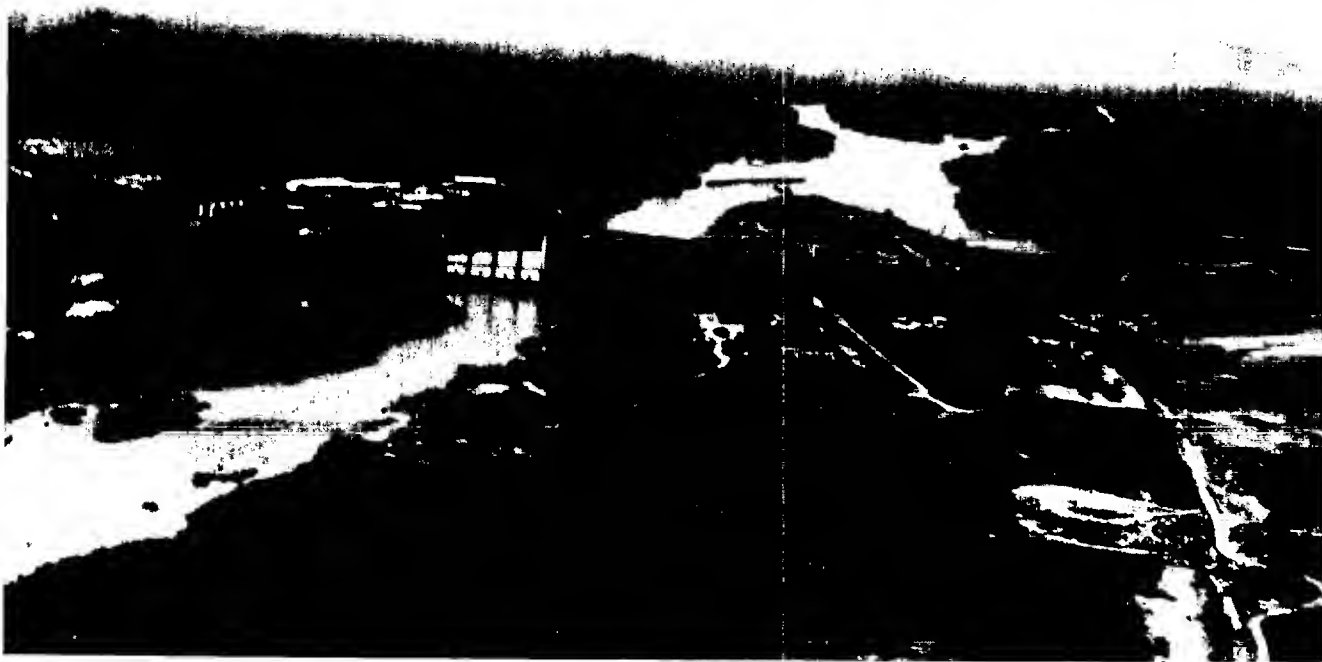
Approved For Release 2004/03/26 : CIA-RDP78-04546A003300010007-0

NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c lkg downstream. 11 August 1967.
Confidential (17,29)

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7. NIGER DAM, NIGERIA, AUGUST 11, 1967. Closer view of Niger Dam, looking downstream. Cement center section completed except for installation of spillway gates, intake gates for penstocks. Openings for penstocks leading to turbines clearly visible at bottom of cement center portion, two penstocks serve each turbine and generator. Eventual installation will be 12 turbine-generator sets: 8 discharging into left channel and 4 into right channel. Right end of cement section not yet connected to right rock-fill wing wall, since work still in progress. Breakwater in river below dam is almost completed to provide protected entrance to lower navigation lock.

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NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c. Upper locks 1kg NW upstream. 11 August 1967.

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[REDACTED] NIGER DAM, NIGERIA,
AUGUST 11, 1967

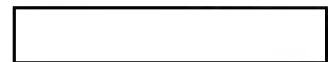
8. Aerial view of upper locks looking upstream (Northwest). Left rock-fill wing wall shows at left of picture. Excavation in foreground is passing basin for barges and other river vessels.

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NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c 1kg NW upstream. 11 Aug 1967.
Confidential (17,29)

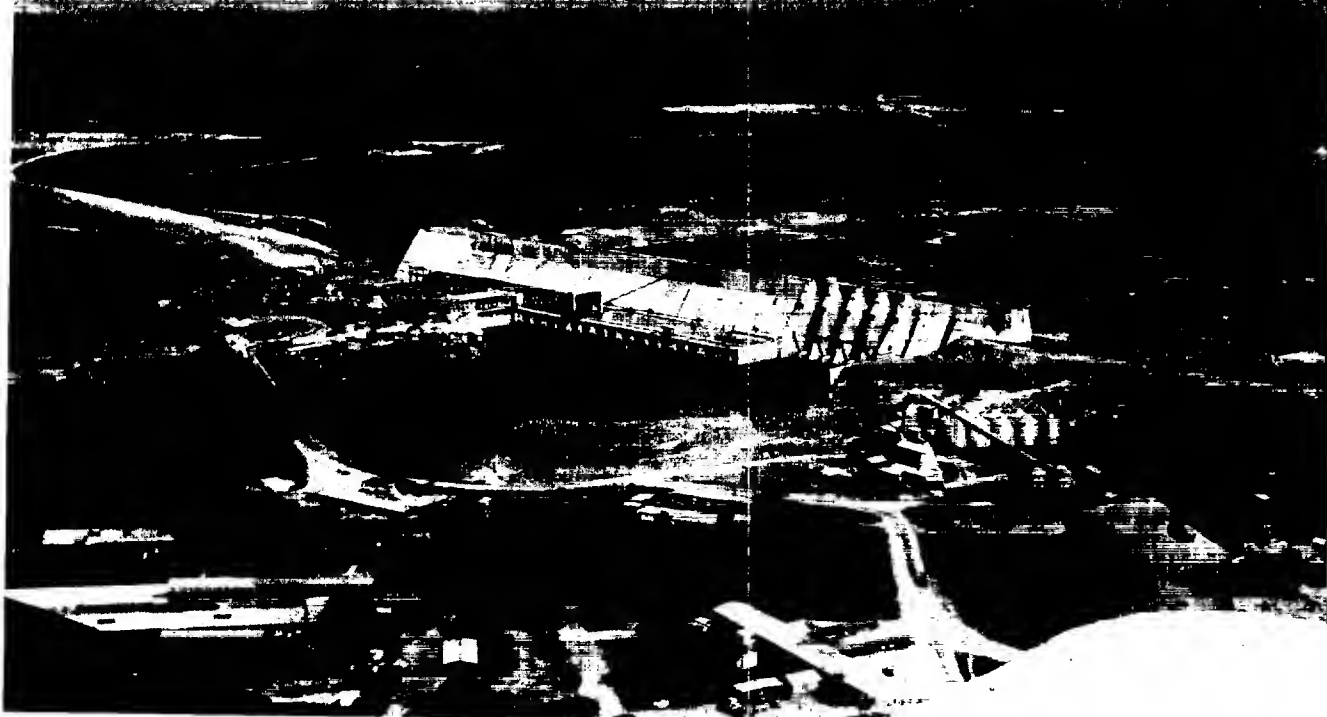


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9. NIGER DAM, NIGERIA, AUGUST 11, 1967. Aerial view of Niger Dam looking upstream (Northwest). Entire current of Niger River passing through spillway at right front of picture. At right of picture left rock-fill wing wall connected to cement center portion but not yet built up to full height. New permanent bridge over Niger shown in foreground. Right rock-fill wing wall mostly completed beyond bridge, but not yet connected to cement center portion.

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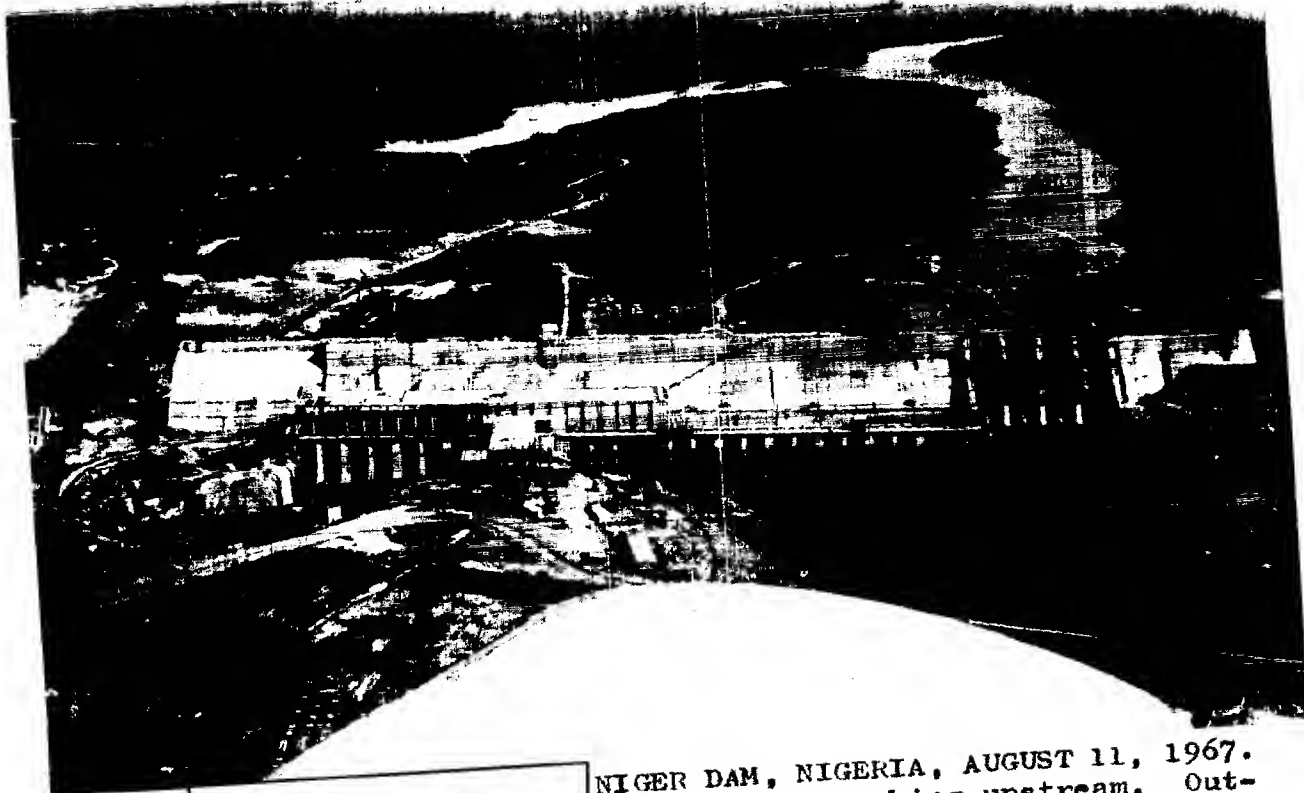
NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c 1kg upstream. 11 Aug 1967.
Confidential (17,29)



CIA 1204625

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10. NIGER DAM, NIGERIA, AUGUST 11, 1967. Close-up aerial view of Niger Dam looking upstream. Outline of former Kainji Island clearly visible with entire Niger flowing through left channel and spillway which at right of picture. Dammed off right channel of Niger shows at left with upstream cofferdam in upper left of picture. Cement center section of dam completed, with power house for four initial generators almost completed halfway across dam face. This part of power house will contain two turbine-generators discharging into left channel, two more whose turbines will also discharge into right channel and two sets of penstocks Niger when installed later. Rest of power house across remaining portion of dam face not being constructed at this time. It will contain six turbine-generators for which penstocks already built into dam.

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25X1 NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c lkg upstream at almost completed portion of power
house. 11 August 1967. [REDACTED]
Confidential (17,29) CIA 1204626

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11.

Oblique aerial view of concrete center section of Niger Dam looking upstream showing almost completed portion of power house, administration building in front of it, and work in progress preparing tailrace for the turbine-generator sets which will eventually discharge into right channel of Niger (center foreground).

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NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c. 11 August 1967.
Confidential (17,29)

CIA 1204627

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12. [REDACTED] NIGER DAM, NIGERIA, AUGUST 11, 1967. Enfilade view of Niger Dam showing successively from foreground; work in progress in bed of dammed-off right channel of Niger River; tailrace being prepared to discharge into right channel; concrete center section with power house and administrative building; left channel flowing through spillway with new permanent bridge spanning it at right of picture; left rock-fill wing wall almost completed back to [REDACTED] in middle distance.

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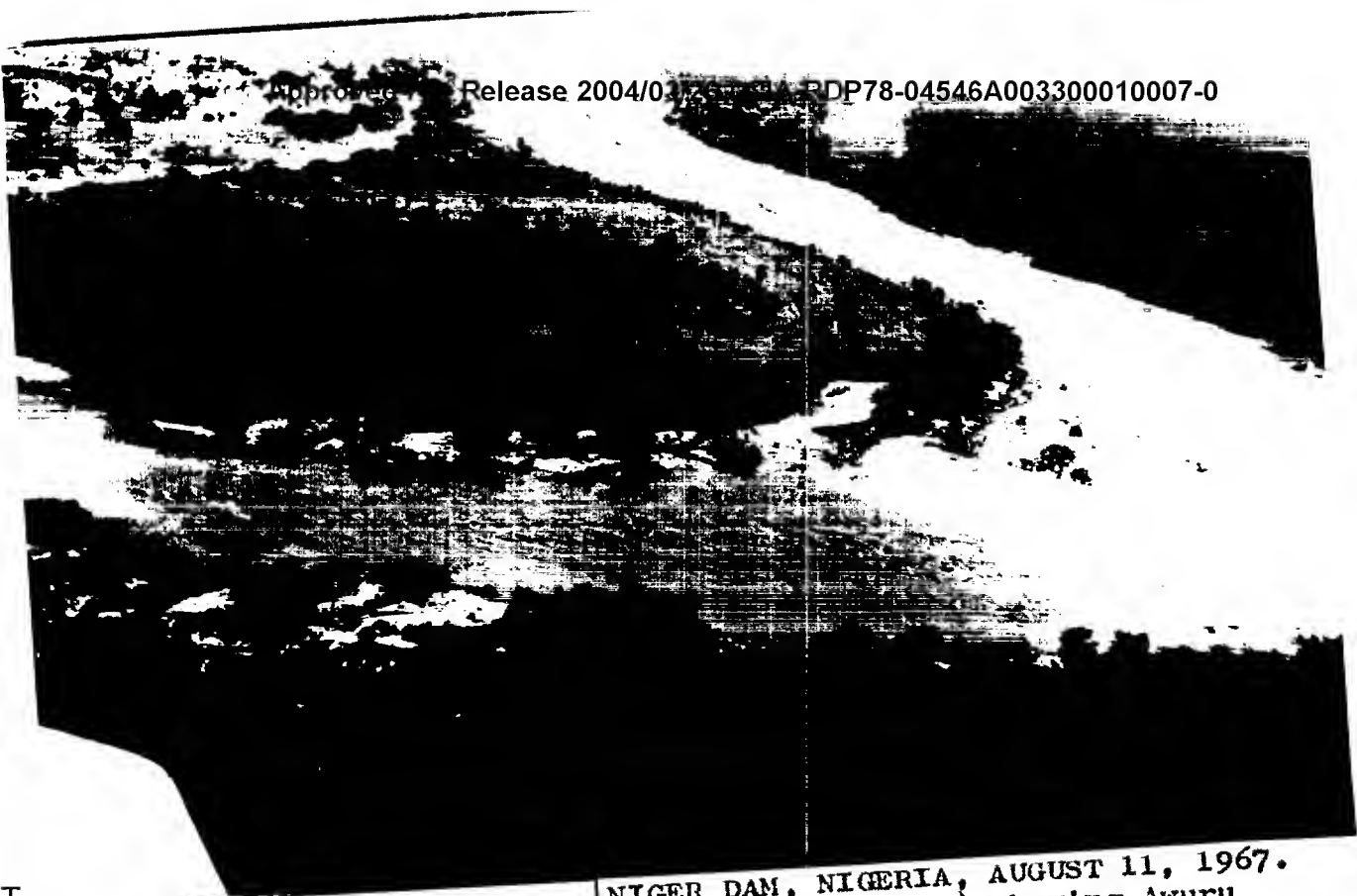
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NIGERIA WAC 783C KAINJI (NR) 09 50N 04 37E
Lkg NW upstream at Awuru Rapids in Niger River 11mi. below Niger Dam u/c.
11 August 1967.
Confidential (1,17,29) CIA 1204628

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NIGER DAM, NIGERIA, AUGUST 11, 1967.

13.

Aerial view looking upstream (Northwest) showing Awuru Rapids in Niger River 11 miles below Niger Dam at Kainji. These rapids will be by-passed by a short navigation canal across neck of sharp fishhook bend on far (right) bank. Weir to divert water into upstream entrance of canal shows across river below top of picture.

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25X1 NIGERIA WAC 783C KAINJI (NR) 09 50N 04 37E
Fishhook bend in Niger River at Awuru 1kg upstream near Niger Dam u/c.
11 August 1967.
Confidential (1,17,29) CIA 1204629

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Approved For Release 2004/03/26 : CIA-RDP78-04546A003300010007-0



14. NIGER DAM, NIGERIA, AUGUST 11, 1967.
Aerial view of fishhook bend in Niger River at Awuru looking
upstream. Navigation canal being constructed across neck of
bend on right bank does not show, but its downstream entrance
is just outside left edge of picture and canal will run
roughly parallel to small high water season channel shown in
this picture cutting across neck.

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NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam Navigation canal by-passing Awuru Rapids. 11 Aug 1967.

Confidential

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CIA 1204630

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15.

[] NIGER DAM, NIGERIA, AUGUST 11, 1967.
 Aerial view of dam and canal by passing Awuru Rapids.
 Downstream entrance to canal in foreground, lock in center
 and upstream entrance in far background.

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25X1 NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam Project. Lock in Awuru Rapids by-pass canal u/c. 11 Aug
1967.
Confidential (17,29) CIA 1204631

Approved For Release 2004/03/26 : CIA-RDP78-04546A003300010007-0



16. [REDACTED] NIGER DAM, NIGERIA, AUGUST 11, 1967. Aerial view of lock being built in Awuru Rapids by-pass canal. Niger River shown in background flowing down to fishhook bend just outside upper right corner of picture. Ends of lock have been finished and gates installed but sides not yet begun.

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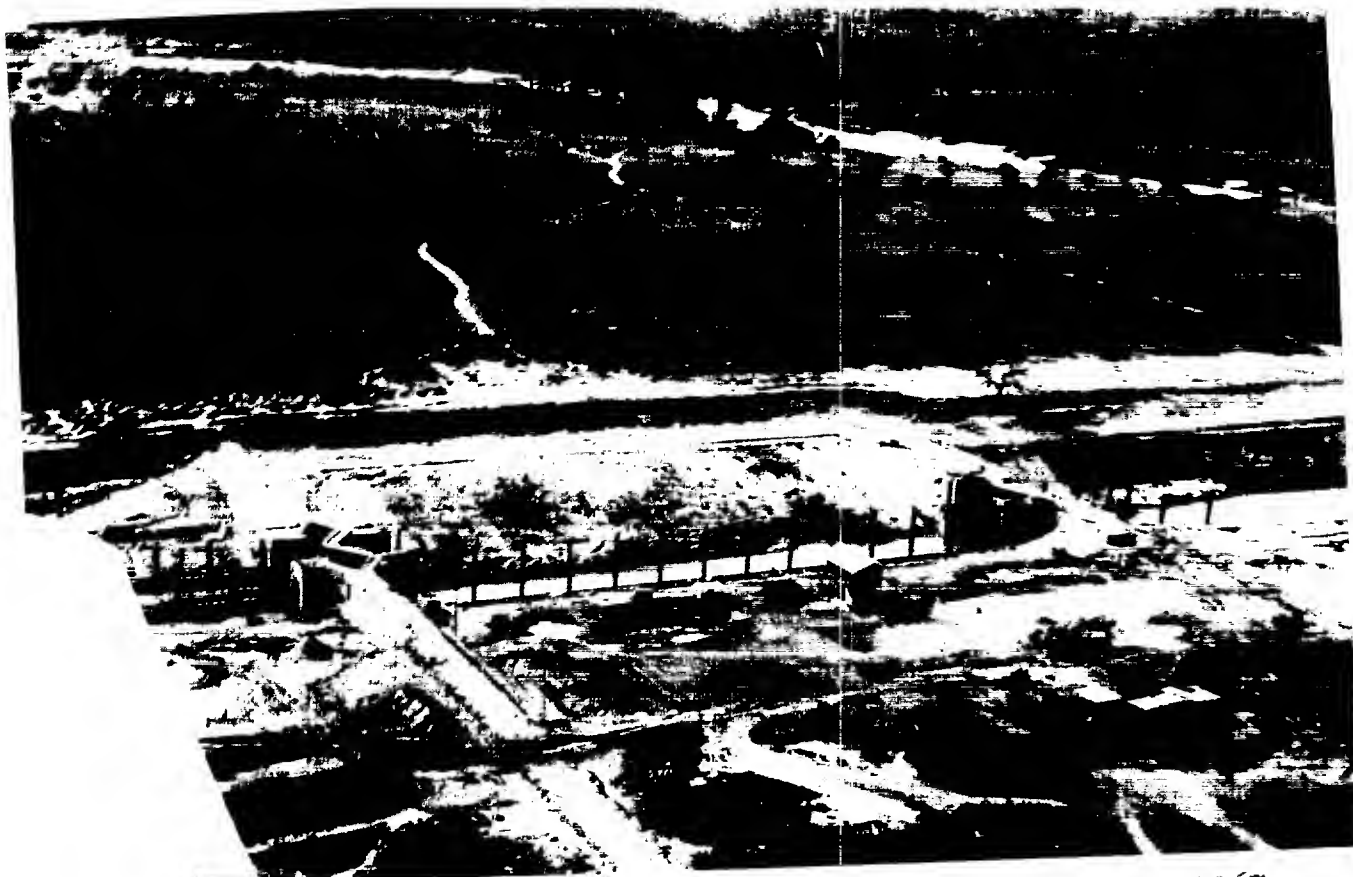
25X1 NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c. Lock in Awuru Rapids by-pass canal. 11 Aug 1967.

Confidential

(17,29)

CIA 1204632

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Approved For Release 2004/03/26 : CIA-RDP78-04546A000300010007-0
NIGER DAM, NIGERIA, AUGUST 11, 1967.
Aerial view of lock in foreground showing
Niger River below fishhook bend flowing towards lower end
of canal just outside lower right corner of picture.

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17.

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25X1 NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c. Upper entrance to Awuru Rapids by-pass canal.
11 August 1967. [REDACTED]
Confidential (17,29) CIA 1204633

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Age Group	2004	2006	2008
18-29	~75	~80	~85
30-49	~65	~70	~75
50-69	~55	~60	~65
70+	~45	~50	~55

NIGER DAM, NIGERIA, AUGUST 11, 1967.
 Iru Rapids by-pass canal showing weir
 03326 CIA RDP78-04560A003300010007-0
 over-topped by Niger River at flood

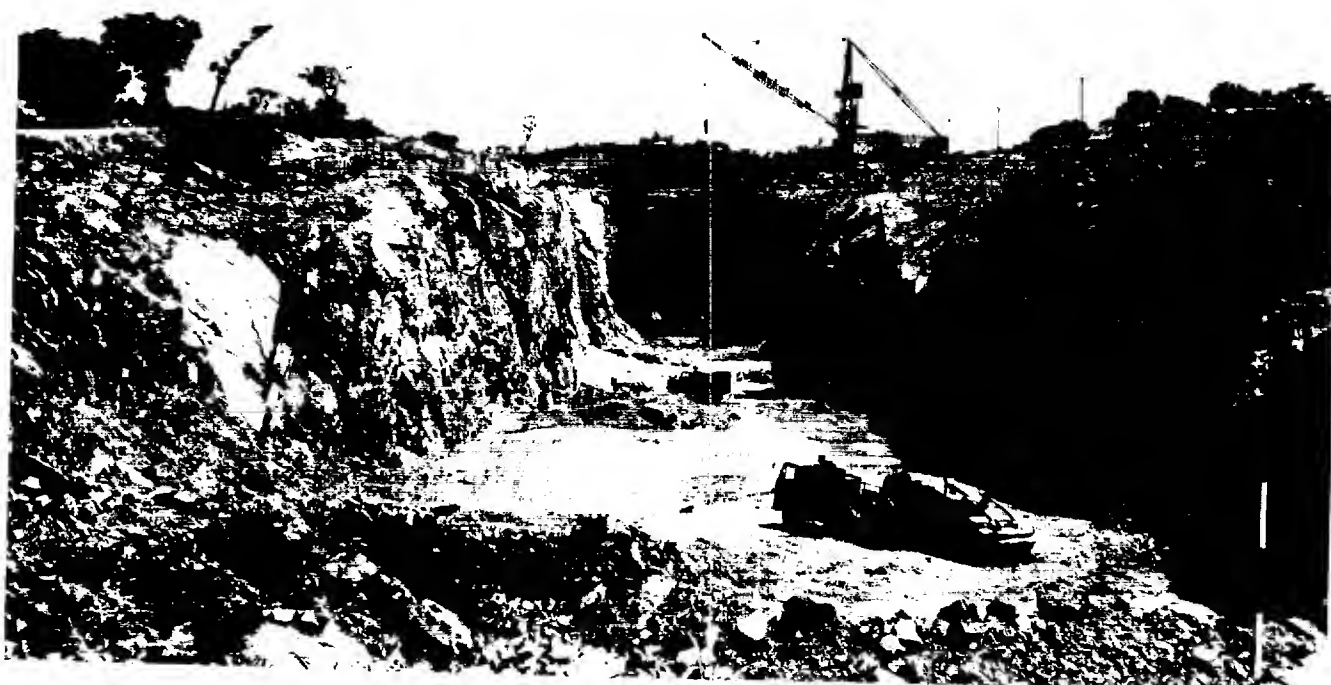
Approved For Release 2004/03/26 : CIA-RDP78-04546A003300010007-0

NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam. Excavated pit in which lower navigation lock is u/c
1kg upstream. 11 August 1967. CIA 1204634
Confidential (17)

25X1

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21. Approved For Release 2004/03/26 : CIA-RDP78-04546A003300010007-0
MAGDO DAM, NIGERIA, AUGUST 11, 1967.
View of excavated pit in which lower navigation lock being
constructed, looking upstream.

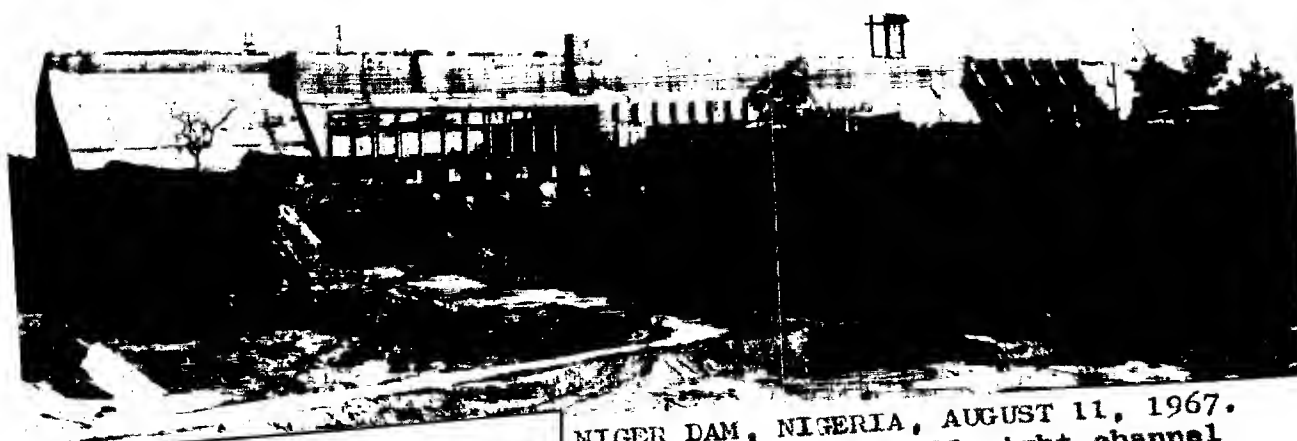
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NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c. 11 August 1967.
Confidential (17,29)

CIA 1204635

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22. [REDACTED] NIGER DAM, NIGERIA, AUGUST 11, 1967. Junction of future tailrace and dammed off right channel of Niger River showing cement center section of dam and partially completed power house and administration building. Large square gantry crane on top of dam will travel back and forth and be used to open and close intake gates for power. Drag lines on top of dam at both ends are being used for construction. [REDACTED] will be removed upon completion of dam.

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NIGERIA WAC 783C KAINJI 09 50N 04 37E
Niger River Dam u/c. Downstream face of dam. 11 August 1967.

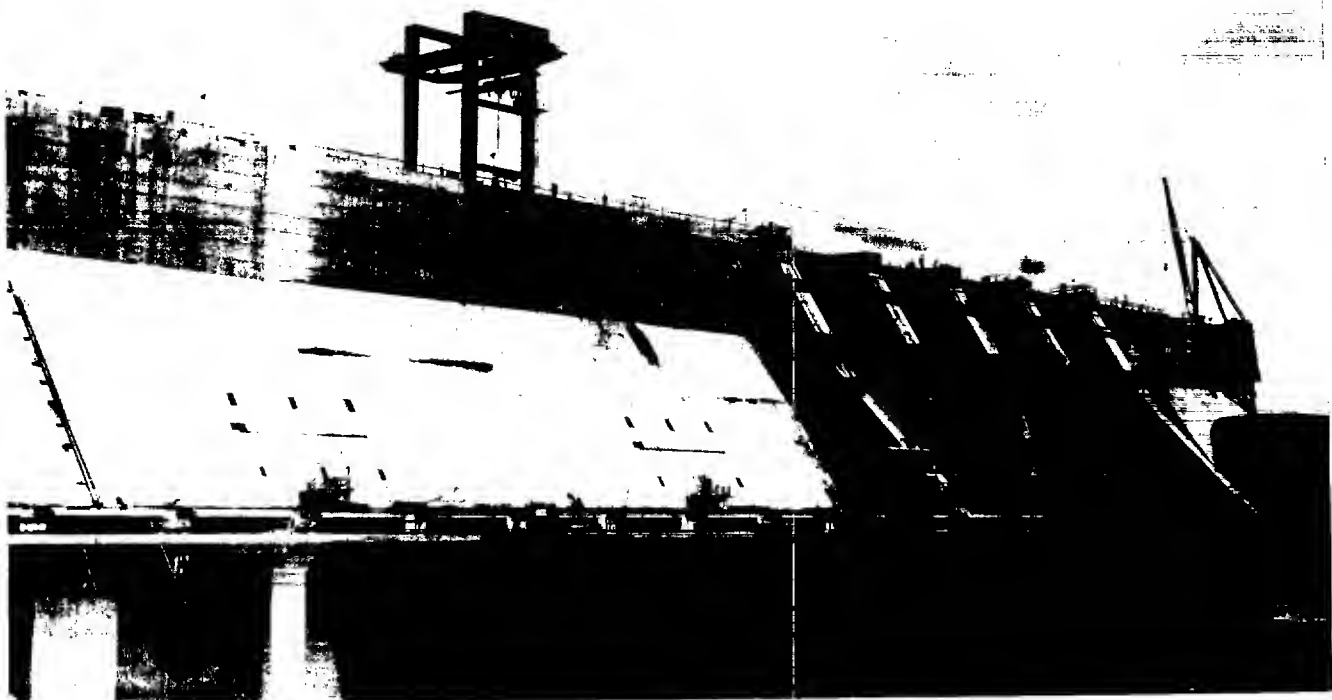
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24. [REDACTED] NIGER DAM, NIGERIA, AUGUST 11, 1967.
Close-up of downstream face of Niger Dam showing from right to left: left rock-fill wing wall of dam being built on to cement center portion; framework of spillway, gates to which not yet installed; discharge openings for turbine-generator sets showing at bottom of foundations for future part of power house to be built at later date. Large square gantry crane for raising and lowering intake gates has been installed on top of dam (center).